10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

HCN1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14228b

Product Information

Application	WB, IHC-P, E
Primary Accession	O60741
Other Accession	O88704, NP_066550.2
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34236
Calculated MW	98796
Antigen Region	860-889

Additional Information

Gene ID	348980
Other Names	Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 1, Brain cyclic nucleotide-gated channel 1, BCNG-1, HCN1, BCNG1
Target/Specificity	This HCN1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 860-889 amino acids from the C-terminal region of human HCN1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HCN1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HCN1
Synonyms	BCNG1

Function	Hyperpolarization-activated ion channel that are permeable to sodium and potassium ions (PubMed:15351778, PubMed:28086084). Displays lower selectivity for K(+) over Na(+) ions (PubMed:28086084). Contributes to the native pacemaker currents in heart (If) and in the generation of the I(h) current which controls neuron excitability (PubMed:29936235, PubMed:30351409). Participates in cerebellar mechanisms of motor learning (By similarity). May mediate responses to sour stimuli (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Detected in brain, in particular in amygdala and hippocampus, while expression in caudate nucleus, corpus callosum, substantia nigra, subthalamic nucleus and thalamus is very low or not detectable. Detected at very low levels in muscle and pancreas

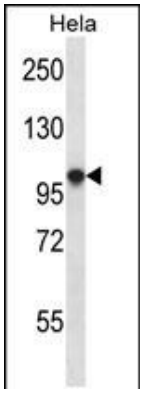
Background

Hyperpolarization-activated cation channels of the HCN gene family, such as HCN1, contribute to spontaneous rhythmic activity in both heart and brain.

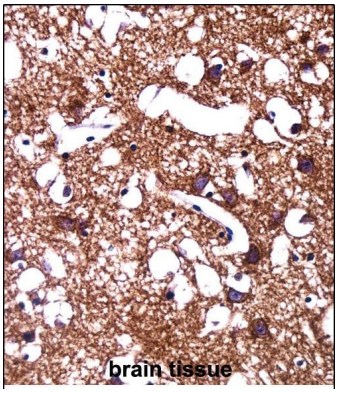
References

Odefrey, F., et al. Cancer Res. 70(4):1449-1458(2010)
Laurin, N., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 150B (1), 95-103 (2009) :
Woolcott, C.G., et al. Breast Cancer Res. 11 (1), R10 (2009) :
Laurin, N., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 147B (5), 600-605 (2008) :
Tang, B., et al. Neurobiol. Dis. 29(1):59-70(2008)

Images



HCN1 Antibody (C-term) (Cat. #AP14228b) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the HCN1 antibody detected the HCN1 protein (arrow).



HCN1 Antibody (C-term) (AP14228b)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of HCN1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.